

(No Model.)

R. S. BROWN.
SPIRIT LEVEL.

No. 505,937.

Patented Oct. 3, 1893.

Fig. 1.

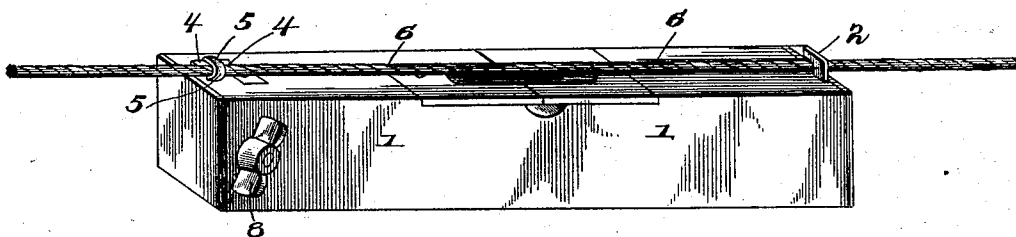


Fig. 2.

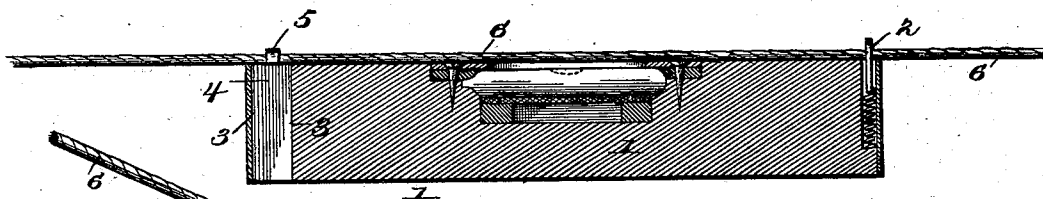
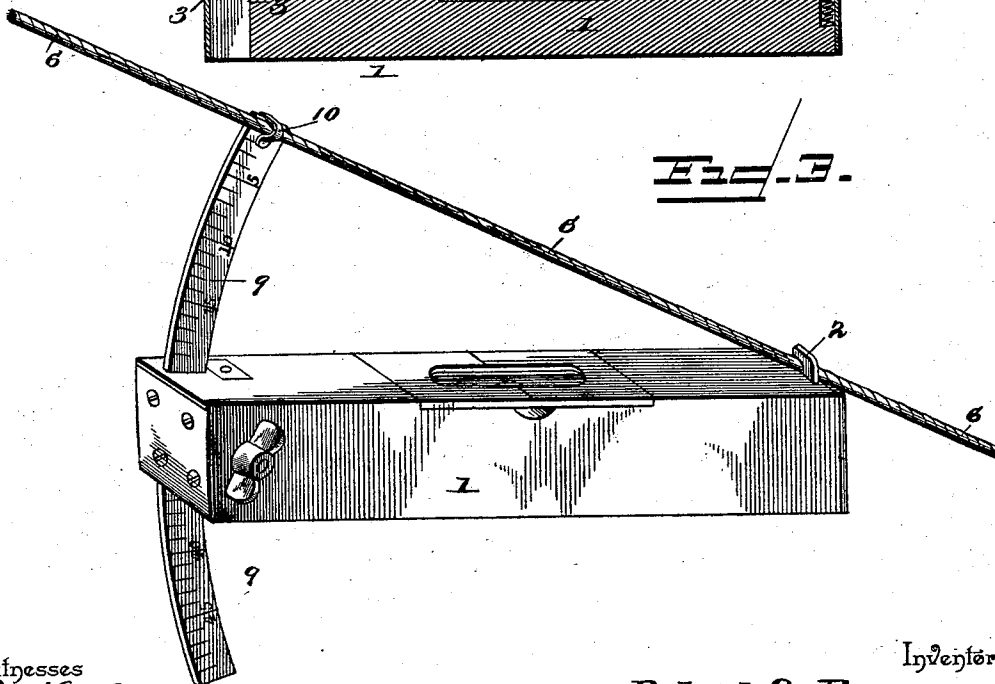


Fig. 3.



Witnesses

C. H. Stewart.

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UNITED STATES PATENT OFFICE.

ROBERT S. BROWN, OF ST. ALBANS, WEST VIRGINIA.

SPIRIT-LEVEL.

SPECIFICATION forming part of Letters Patent No. 505,937, dated October 3, 1893.

Application filed January 25, 1893. Serial No. 459,682. (No model.)

To all whom it may concern:

Be it known that I, ROBERT S. BROWN, a citizen of the United States, residing at St. Albans, in the county of Kanawha and State of West Virginia, have invented a new and useful Spirit-Level, of which the following is a specification.

My invention relates to improvements in spirit-levels such as are employed by carpenters, builders, masons, &c.; and the object of my invention is to provide a device whereby a line such as employed in adjusting the timbers of a building or in lining brick-work, &c., may be leveled, and also to provide means whereby angles of depression and elevation may be determined without the use of independent instruments.

Further objects of my invention will appear in the following description and the novel features thereof will be particularly pointed out in the claims.

In the drawings:—Figure 1 is a perspective view of my improved spirit-level applied in the operative position to a line. Fig. 2 is a longitudinal sectional view of the spirit-level. Fig. 3 is a perspective view of the same provided with the quadrant attachment.

Like numerals of reference indicate like parts in all the figures of the drawings.

1 represents a spirit-level of the ordinary construction provided at one end with a spring-actuated hook 2, and at the opposite end with a vertical slot or socket 3 in which is fitted a plate 4 bearing a hook 5. The line 6 is engaged by said hooks at the opposite ends of the spirit-level, and by extending the line in opposite directions from the level the arrangement of distant points in a horizontal plane may be determined. The plate 4 is secured in place in the slot or socket by a thumb-screw 8.

9 represents a quadrant, which is adapted

to be inserted in the slot or socket after the removal of the plate 4, and it is provided at one end with a hook 10, similar to that carried by said plate.

In determining the elevation or depression of a line, the line 6 is arranged to agree therewith and the spirit-level is arranged horizontally. The angle between the two will then be indicated by the number of degrees upon the quadrant.

This instrument will be of advantage not only to carpenters, masons, &c., but to road-builders and engineers in the laying of conduits, &c.

Having described my invention, what I claim is—

1. The combination of a spirit level provided with a terminal hook or cord-holding device, of a graduated quadrant arranged at the opposite end of the level, concentric with said cord-holding device and provided with a corresponding cord-holding device, substantially as specified.

2. The combination with a spirit-level, of hooks attached to the opposite ends thereof, one of the hooks being carried by an adjustable plate and a line engaged by said hooks, substantially as specified.

3. In a device of the class described, a spirit-level provided at one end with a spring actuated hook and at the opposite end with a slot or socket, a graduated quadrant fitted in said slot or socket and carrying a terminal hook, and a thumb-screw to lock said plate in position, substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in the presence of two witnesses.

ROBERT S. BROWN.

Witnesses:

D. M. GRIFFITH,
Z. H. KITCHEN.